4.4. Pronotum smooth, with central keel much less elevated.
5. Antennæ thick, segments short; spots of pronotum oblique .. .. .. 4. KRAUSSI, Saulcy.
5.5. Antennæ slender, segments long (spot of pronotum in transverse triangle) 5. BIPUNCTATUS, L.
2.2. Pronotum flat or slightly tectiform.
3. First segment of posterior tarsi with the pads rounded on lower margin, the 3rd pad not longer than either of first two (edges of all femora undulated) .. .. 6. TURKI, Krauss.
3.3. First segment of posterior tarsi straight on lower margin, 3rd pad as long as 1 and 2 together.
4. Anterior femora with borders straight, unbroken.
5. Apex of vertex broad, prominent between the eyes; hinder borders of pronotum not raised up at edges .. .. .. 7. SUBULATUS, L.
5.5. Apex of vertex broad, but little prominent between the eyes; hinder part of pronotum raised at the edges in a little keel .. .. 8. BOLIVARI, Saulcy.
4.4. Anterior femora with borders undulate
5. Large; inhabits north Europe .. 9. FULIGINOSUS, Zett.
5.5. Small; inhabits south Europe .. 10. CEPEROI, Bol.

1. TETTIX DEPRESSUS, Brisout.

Easily known by the very rugose pronotum, impressed on each side at the shoulders, with the central keel roundly elevated in front half, then subsinuate; the posterior produced part varies in length considerably; when extremely long, *i.e.*, reaching half way down the posterior tibiæ, it forms the variety *acuminatus*, Bris., in which the wings are also long, though normally short. All femora with undulate keels. Length of body, 8mm. ♂, 9mm.-10mm. ♀; of pronotum, 8mm. ♂, 9mm.-14mm. ♀.

Throughout the coasts of the Mediterranean. In France, it is very common in Provence and Languedoc, nearly all the year round; the var. *acuminatus* occurs with the type but less frequently. It is found throughout Spain and Portugal. Brisout records it as far north as Paris, and Rudow, doubtless in error, in Thuringia and Mecklenburg.

A Study of the Generic names of the British Lycænides and their close allies.

By J. W. TUTT, F.E.S.

In 1896, when I wrote the little book *British Butterflies* (Gill & Sons, Warwick Lane, E.C.), I had to consider the generic terms in use, and, with only a superficial search into the various names usually accepted and their application to the divisions required, I concluded it advisable to use certain names for certain genera, stating (*Ent. Rec.*, vii., pp. 219-220) my reasons for the choice of those selected in the RURALIDES (LYCÆNIDES) and later, giving (*op. cit.*, pp. 300-301) a tabulation of the names proposed to be used throughout the work *British Butterflies*.

But the writing of a more or less advanced standard text-book was another matter, and a consideration of the generic (and specific) synonymy became a serious business. Instead of making a study of the whole of the genera ever proposed for British butterflies at one time,

I concluded that it would lead to greater accuracy to deal with each group separately, and to pay no attention to the work of any previous students in this direction, until my own studies *de novo* were completed, when a general collation ought to lead to fairly conclusive results.

On these lines I have worked out the generic synonymy of the "Skippers," so far as it related to the Palæarctic species, and showed, historically, their effective types, in *A Natural History of the British Butterflies*, pt. i., pp. 84-85, the mode of type fixation being based on the automatic rules of the "Merton code." This study will no doubt be in the hands of most entomologists interested in British butterflies. The question of the generic names to be used in the Ruralides (Lycænides), and the fixation of their types, has been a very serious matter, but close study for the last twelve months has led me to certain conclusions. As most of these conclusions will probably be accepted, and come into general use, by the students of our British butterflies, it has been deemed advisable to publish the same independently in this magazine, so that all lepidopterists may have a chance of knowing, if they care, why the names are used in preference to others. Besides, it always gives a chance to the "heathen to blaspheme," and to keep their entomological interests (commencing with the butterflies and ending with the Noctuas) alive, as well as suggesting something fresh to grumble about, and truly, to enjoy life, a grumble is sometimes an absolute necessity. That being so, I offer the following, to students and grumblers alike, as an attempt *de novo* to work out honestly the genera of our European Ruralides, sorrowing that *Thecla*, *Zephyrus*, *Nemeobius*, and other loved names appear to have to go by the board, and trusting that anyone who has studied the literature, and has a logical conclusion to offer in place of any one of those published, will please let me have it privately without delay, so that due consideration may be given thereto before I publish the parts of *A Natural History of the British Lepidoptera* containing our studies of the "Blues," "Coppers," "Hairstreaks," and "*lucina*." I need not say that I shall hold myself greatly obliged to any entomologist who satisfactorily proves any of the following facts to be erroneous, or any of the conclusions to be historically wrong.

[1758] 1780. Plebeius, [Linné,] Kluk.—First used in generic sense by Kluk in 1780. Heterotypical. Crotch, in 1872, erroneously states that Cuvier, in 1799, fixed *argus* as type, but Cuvier does not use the name generically. Besides Crotch's indication, Kirby, in 1896, fixed the type as *argus* (*argyrognomon*).

[1758] 1781. Ruralis, [Linné,] Barbut.—Heterotypical in its use by Linné. Type fixed as *betulae* by Barbut in 1781.

1801. Cupido, Schrank.—Heterotypical. Type fixed in 1870, by Kirby as *alsus* (which, he says, is included in Schrank's *puer* as ♀ of that species). Schrank's ♂ *puer* is a tailed species = *argiades*. *Alsus* (= *minima*) accepted as type by Tutt, in 1896.

1804. Polyommatus, Latreille.—Genus founded independently to cover exactly the same ground as *Cupido*. Type fixed in 1804 as *argus* (= *icarus*) by Latreille. Confirmed by Latreille in 1817 as *icarus*, with reference to Hübner, figs. 292-4.

1806. Rusticus, Hübner.—Created solely for *argus*, Hb. (*argyrognomon*), which is therefore the type. Falls before *Plebeius*, [Linné,] Kluk.

1807. Thecla, Fabricius.—Heterotypical. Type fixed in 1821 by Swainson as *betulae*, Linn. Confirmed by Curtis in 1829, and by Westwood in 1840. Falls therefore as a synonym of *Ruralis*, [Linné,] Barbut.

1807. Lycæna, Fabricius.—Heterotypical, containing "blues" and "coppers." Restricted by Latreille in 1809 to the untailed "blues," and by Oken in 1816 to the "blues." Type fixed in 1824 by Curtis as *phlaeas*, but this action *ultra vires* in face of previous restriction. Type fixed in 1838 as *arion* by Thon.

1816. Zephyrus, Dalman.—Type fixed by Dalman as *betulae*, therefore falls as a synonym of *Thecla*, Fab., and *Ruralis*, [Linné,] Barbut.

1816. Aurotis, Dalman.—Dalman's section of *Zephyrus* containing *betulae*, therefore falls as a synonym of *Zephyrus*, Dalm., *Thecla*, Fab., and *Ruralis*, [Linné,] Barbut.

1816. Heodes, Dalman.—Only *virgaureae* cited in the generic synopsis (p. 63), therefore this is the type.

1816. Cyaniris, Dalman.—Only *argianus* (=*semiargus*) cited in the generic synopsis (p. 63), therefore this is the type.

1817. Aricia, R. L.—Created for Ochsenheimer's fam. A, the "blues." Used by Herrich-Schäffer in 1839 for *agestis* (*astrarche*), which must, therefore, be taken as the type.

1817. Chrysoptera, Zincken.—Created for Ochsenheimer's fam. 8 and fam. 9, "coppers" and "hairstreaks." *Virgaureae* should be taken as the type, this being the species of which the larva was best known to Schiffermüller and Ochsenheimer, both of whom use the larval characters in their diagnosis of the section. Falls as a synonym of *Heodes*, Dalm.

1818 *circa*. Hamearis, Hübner.—Heterotypical. Type designated *lucina* by Curtis in 1830, confirmed by Westwood in 1840.

1818 *circa*. Nomiades, Hübner.—Heterotypical. Restricted by Stephens in 1835 to *acis*, *alsus*, *alcon* and *arion*. Type fixed in 1873 by Scudder as *semiargus* (*acis*). Therefore falls as a synonym of *Cyaniris*, Dalman.

1818 *circa*. Agriades, Hübner.—Heterotypical. Restricted by Stephens in 1835 to *argiolus*, *corydon*, *adonis*, *alexis*, *agestis*, *dorylas* and *icarius*. Doubtfully restricted further in 1858 by Kirby to *corydon* and *astrarche* (*agestis*). Stephens' restriction renders Scudder's action, in 1875, of fixing *orbitulus* as type, *ultra vires*. We would suggest *corydon* as type.

1818 *circa*. Lycæides, Hübner.—Contains *argus* (*argyrognomon*) the type of Hübner's genus *Rusticus*, of which it is therefore a synonym. Falls also before *Plebeius*.

1818 *circa*. Everes, Hübner.—Created for *amyntas* (*argiades*) and its var. *polysperchon*. *Argiades* is therefore the type.

1818 *circa*. Lampides, Hübner.—Heterotypical. Used in 1869 by Newman for *boeticus*. Confirmed by Kirby in 1896.

1818 *circa*. Chrysophanus, Hübner.—Heterotypical. Restricted in 1841 by Westwood to *phlaeas*, *hippothoë* and *virgaureae*. Type fixed in 1875 by Scudder as *hippothoë*.

1818 *circa*. Scolitantides, Hübner.—Created for *battus*, Hb. (*orion*, Pall.), and *hylas*, Hb. (*baton*, Bergs.). Type fixed in 1896 by Kirby as *orion*.

1818 *circa*. Thestor, Hübner.—Erected for *protumnus* and *ballus*. Restricted by Lederer in 1857 to *ballus*, excluding *protumnus*; *ballus* therefore becomes type. Used also thus in 1861 by Staudinger.

1818 *circa*. Lycus, Hübner.—Type fixed in 1835 by Stephens as *rubi*, but the name preoccupied from 1787 (in Coleoptera).

1818 *circa*. Bithys, Hübner.—Heterotypical. Restricted in 1835 by Stephens to *quercûs*, and confirmed by him in 1850; this is, therefore, the type.

1818 *circa*. Strymon, Hübner.—Heterotypical. Restricted in 1835 by Stephens to *pruni*, *betulae*, *w-album* and *spini*. Scudder's action, therefore, in 1872, in fixing *titus* as type is *ultra vires*. We would suggest *pruni* as type.

1820. Callophrys, Billberg.—Type fixed in 1875 as *rubi* by Scudder.

1827. Nemeobius, Stephens.—Created for *lucina*, sole species and therefore type. Falls as a synonym of *Hamearis*.

1828. Pithecops, Horsfield.—Heterotypical. Horsfield described *hylax* at length, citing also *alsus*, *lysimon*, *pheretes* and *damon*. We consider *hylax* Horsfield's type.

1839. Tomares, Rambur.—Created for *ballus*; sole species and therefore type. Falls as a synonym of *Thestor*, Hb.

1858. Læosopis, Rambur.—Created for *roboris*; sole species and therefore type.

1881. Zizera, Moore.—Type fixed by Moore as *minima*, therefore falls as a synonym of *Cupido*.

Two genera will apparently be wanted to complete are study of the group. For these we suggest:—

Celastrina, n. gen.—Type *argiolus*.

Rumicia, n. gen.—Type *phlaeas*.

We are greatly indebted to Mr. Prout for his kindness in going over and checking these names with the literature on which they are based, and which will be published in due course in the *The Natural History of British Butterflies*. The names, therefore, we at present propose to use for our British species (we make no note here of the grouping) are as follows :—

Aricia agestis.
Polyommatus icarus.
Agriades coridon.
bellargus.
Cyaniris semiargus.
Cupido minima.

Lycaena arion.

Plebeius argus.
Everes argiades.

Celastrina argiolus.

Lampides boeticus.

Chrysophanus dispar.
Rumicia phlaeas.

Callophrys rubi.

Ruralis betulae.
Bithys quercûs.

Strymon pruni.
w-album.

Hamearis lucina.

A new hybrid Nyssia: Nyssia hybr. merana.

By Rev. C. R. N. BURROWS.

By a fortunate experiment undertaken in the spring of last year, Mr. A. W. Mera succeeded in pairing a ♂ *Nyssia zonaria* with a ♀ *N. lapponaria*. The eggs proving fertile, he naturally took special care of the progeny, and was rewarded by the emergence, this spring, of several magnificent specimens of both sexes. As he presented the first male to me, I feel myself more or less called upon to publish the account of the new insect.

The male presents the appearance of a dark suffused *N. zonaria*, thus following the rule of resembling the parent of the same sex. There is an entire absence of the orange costal streak on the forewing, so distinct in *N. lapponaria*. The wings are not transparent, but well scaled, perhaps a trifle whiter than in *N. zonaria*. The subterminal line is completely different from that of the male parent, in which it is distinct, unbroken, and direct. In the hybrid the line is distinct enough, but wavy, following the female parent, *N. lapponaria*. The central lines enclose a darker shade, striking enough, but I have seen *N. zonaria* which approach it closely in this way. The hindwings do not show the marginal shade which is so distinct in *N. zonaria*, but are crossed by two dark lines, only indistinctly marked in *N. lapponaria*.

The female hybrid is entirely without the series of orange spots on the central line peculiar to *N. lapponaria*, the female parent, and is also without the transverse bands of the male parent. The rudimentary wings are perhaps a trifle more developed than in *N. zonaria*, and about the same as in the case of the female parent. The down upon the abdomen is not very different from that of the female *N. lapponaria*.

I would suggest that this insect should be called *Nyssia* hybrid *merana*.

[As bearing on this matter we have, in *British Lepidoptera*, vol. v., p. 30 (a volume which we hope to get published now at an early date),